

REMARKS

Claims 1 through 22 are pending in this Application, of which claims 6 through 17 stand withdrawn from consideration pursuant to the provisions of 37 C.F.R. § 1.142(b). Accordingly, claims 1 through 5 and 18 through 22 are active.

Claims 1 and 18 have been amended for clarification and claims 4 and 21 have been amended to address a minor informality. Care has been exercised to avoid the introduction of new matter. Adequate descriptive support for the present Amendment should be apparent throughout the originally filed disclosure, including page 17, lines 3-5. Applicants submit that the present Amendment does not generate any new matter issue. Entry of the present Amendment is respectfully solicited. It is believed that this response places this case in condition for allowance. Hence, prompt favorable reconsideration of this case is solicited.

Reconsideration and withdrawal of the claim objection are solicited in view of the foregoing amendments to claims 4 and 21 which address the Examiner's objection.

Claims 1-5 and 18-22 were rejected under 35 U.S.C. § 103 for obviousness predicated upon Gates et al. (U.S. Pat. No. 6,603,204, hereinafter "Gates") in view of Ma et al. (U.S. Pat. No. 6,764,810, hereinafter "Ma"). Applicants respectfully traverse.

Claims 1 and 18 have been amended to describe a semiconductor device, wherein the etching stopper is positioned substantially below the middle level in the height of the metal interconnect. This feature is neither disclosed nor suggested by Gates or Ma. The newly recited claim feature allows the etching stopper to perform its intended function, i.e., high dimensional precision of an interconnect trench and a via hole under the trench in the step of forming the trench.

More specifically, in forming the via hole 7A of Fig. 2C by etching the interlayer dielectric film 4, the diameter of the via hole 7A would be larger than the diameter of the etching stopper 5, provided that the middle surface (center) of the etching stopper is higher than illustrated. Meanwhile, since the middle surface of the etching stopper is below the middle level of in the height of said metal interconnect according to the invention as claimed, the interlayer dielectric film below the etching stopper is thinner than the film above, thereby preventing the diameter of the via hole 7A from becoming excessively large when formed.

There is a substantial difference between the claimed semiconductor device and Gates's semiconductor device such that even if Gate's semiconductor device is modified as suggested by the Examiner, and Applicants do not agree that the requisite fact-based motivation has been established, the claimed invention would not result. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988). This is because claims 1 and 18 require that the etching stopper is positioned substantially below the middle level in the height of the metal interconnect. No such structure is disclosed or suggested by either of the applied references.

Based upon the foregoing it should be apparent that even if the applied references are combined as proposed by the Examiner, and again Applicants do not agree that the requisite fact-based motivation has been established, the claimed invention would not result. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, *supra*.

Applicants, therefore, submit that the imposed rejection of claims 1-5 and 18-22 under 35 U.S.C. § 103 for obviousness predicated upon Gates in view of Ma is not factually or legally viable and, hence, solicit withdrawal thereof.

Based upon the arguments submitted *supra*, it should be apparent that the imposed rejections have been overcome and that all active claims are in condition for immediate

Application No.: 10/664,875

allowance. Favorable consideration is, therefore, solicited. If there are any outstanding issues which might be resolved by an interview or an Examiner's amendment, the Examiner is invited to call Applicants' representative at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP



Brian K. Seidleck

Registration No. 51,321

600 13th Street, N.W.
Washington, DC 20005-3096
Phone: 202.756.8000 AJS:bjs:ntb
Facsimile: 202.756.8087
Date: June 18, 2007

**Please recognize our Customer No. 20277
as our correspondence address.**